

REMARKS

The application has been reviewed in light of the Office Action mailed on May 18, 2005. Withdrawn claims 7-9, 13-15 and 19-21 have been cancelled to simplify the case. Applicants reserve the right to pursue the cancelled claims in other applications. Claims 4-6, 10-12, 16-18 and 22-27 are now pending in the application. Reconsideration of the pending claims is respectfully requested for the following reasons.

Claims 4-6, 10-12, 16-18 and 22-27 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Office Action asserts that in claim 4 the limitation “‘a plurality of kinds of sample plates having **different shape**, size and/or **well depth**’ causes indefiniteness because there is no support in the specification to cite such limitation.” Office Action, page 2.

Applicants disagree because not only is the limitation explicitly supported by the specification, it is a very important feature of the claimed invention. The Examiner’s attention is directed, for example, to the following portions of the as-filed specification: page 14, line 20 – page 15, line 3; page 18, line 26 – page 20, line 11; and page 20, line 26 – page 21, line 6. In particular, page 14, lines 17-23 and page 18, line 26 – page 20, line 15 of the specification provide (with emphasis added) that:

The[] ... plates can be classified into two kinds depending on the number of samples which can be charged into one plate.

One of the ... plates includes wells of 8x12=96 holes for introducing and holding samples into the plate and another ... plate includes wells of 16x24=384 holes.

The auto sampler according to the present invention can be adapted to **different plates** (having different height) by making use of the adapter. Among the sample plates used in the electrophoresis apparatus according to the present invention, even with sample plates having the same 96 wells a plurality of types are marketed, and such as **the shape, size and well depth thereof are different** depending on the manufacturers.

For example, ... the **height from the bottom of the well** to the sample liquid surface for one of marketed 96 sample plates is about 2.5 mm, therefore, in order to surely introduce the sample

into the capillary the capillary has to be inserted to the height of about 1 mm from the bottom of the well.

Thus, the specification provides explicit support for the subject limitations, and the claims are in full compliance with 35 U.S.C. § 112.

The specification explains that the shape, size and/or well depth, of 96 well sample plates for example, are different depending upon manufacturers. Specification, page 19, lines 3-7. In order to cope with the problem due to difference in shape, size and/or well depth (as discussed on page 19, lines 7-23 of the specification), a variety of plate adapters are prepared corresponding to sample plates having a specific shape, size and/or well depth. Thereby, when a sample plate assembly formed by the combination of the particular sample plate and the corresponding plate adapter is mounted on the tray 5 of the auto sampler, the center axes and the bottom depths of the wells of the particular sample plate are set equal, and assume a predetermined position with respect to the auto sampler in the same way as any other sample plates having different shape, size and/or well depth, in addition to number of wells (96 or 384, for example).

Claims 4-6, 10-12, 16-18 and 22-27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Moring et al., U.S. Patent No. 5,384,024 ("Moring").  
Reconsideration is respectfully requested.

Initially, the rejection should be withdrawn because, as admitted by the Office Action, the limitation "wherein the adapter is prepared for a plurality of kinds of sample plates having different shape, size and/or well depth" (as recited in claim 4) has not been considered. The Office Action states only that "[w]ith referring to the difference size, there is no support for applicants to make such limitation." As discussed above, the specification explicitly supports the limitation.

Independent claim 5 recites that "the adapter is prepared for a plurality of kinds of sample plates having different well depth," and independent claim 6 recites "the adapter is prepared for a plurality of kinds of sample plates having a different number of wells." As

admitted by the Office Action, these limitations have not been considered, and the rejections of independent claims 4-6 should be withdrawn.

Claims 10-12, 16-18 and 22-27 depend from claims 4-6 and contain the limitations of their base claims. The rejection of the dependent claims should be withdrawn for the same reasons.

Moreover, Moring fails to teach or suggest several limitations of the unique plate adapters recited in the pending claims. Claim 4 recites that “the adapter is prepared for a plurality of kinds of sample plates having different shape, size and/or well depth so that center axes and bottom heights of the wells of the sample plate are adjusted to assume a predetermined position with respect to the auto sampler.” Claim 5 recites that “the adapter is prepared for a plurality of kinds of sample plates having different well depth so that bottom heights of the wells of the sample plate are adjusted to assume a predetermined position with respect to the auto sampler.” Claim 6 recites that “the adapter is prepared for a plurality of kinds of sample plates having a different number of wells so that center axes of the wells of the sample plate are adjusted to assume a predetermined position with respect to the auto sampler.”

Moring fails to teach or suggest these claim limitations, and the Office Action does not contend to the contrary. In Moring, the inner tray 57, which supports the sample vials 99 and buffer vials 101, is mounted in an auto-sampler carousel 25. The inner tray 57 may be lifted or removed out of the carousel when the carousel is extended from the cabinet of the machine (column 5, lines 35-38) for allowing a worker to prepare samples off line, and load the samples to vials to prepare a buffer solution. The Moring device allows to extend the carousel, remove the tray, and replace used sample and buffer vials with a whole new set for a new series of runs (column 7, lines 37-41). However, nothing in Moring teaches or suggests the above-quoted limitations describing the plate adapter recited in claims 4-6. Claims 4-6, and claims 10-12, 16-18 and 22-27 depend therefrom are thus allowable over Moring.

Further, the present invention is directed to the capillary array electrophoresis apparatus comprising a capillary array with a plurality of capillaries, the capillaries having sample injection ends that are arranged in alignment. Independent claims 4-6 each recite a “capillary array with a plurality of capillaries, said capillaries having sample injection top ends that are arranged in alignment.”

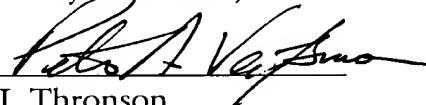
Moring fails to teach or suggest this limitation, and the Office Action does not contend otherwise. To the contrary, Moring discloses an instrument for capillary electrophoresis which is operated by using capillary tubes one by one in series and never uses a capillary array with a plurality of capillaries. For this additional reason claims 4-6 and claims 10-12, 16-18 and 22-27 dependent therefrom distinguish over Moring.

In view of the above amendment and remarks, Applicants believe that the pending application is in condition for allowance.

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Respectfully submitted,

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